

REMARKS

Claims 1-9, 13-16 and 18-22 have been amended and claims 10-12 and 17 have been canceled in this response. Thus, claims 1-9, 13-16 and 18-22 remain pending in this application. Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

Objection to the Specification

The Specification was objected to for minor informalities. Applicants have amended the Specification as recommended by the Examiner and therefore, this objection is rendered moot.

Claim Objections

Claims 9-20 are objected to under 37 C.F.R. § 1.75(c) as being in improper form because a multiple dependent claim cannot depend from a multiple dependent claim. Claim 10-12 and 17 have been canceled. Claims 9, 13-16 and 18-20 have been amended to address this issue and therefore, this objection is rendered moot.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sato et al. (JP 11-141494 A, hereinafter “Sato”) in view of Shibata et al. (U.S. Patent Publication No. 2003/0175121 A1, hereinafter “Shibata”). This rejection is respectfully traversed.

Each of independent claims 1-7 as amended recites, *inter alia*, “a plurality of smooth portions, each being provided between a pair of the notches, wherein the notches have a triangular shape and an arcuate portion is formed in a bottom portion of each of the notches.”

With this arrangement, one aspect of the present invention seeks to reduce aerodynamic noise while at the same time retaining the strength necessary for the impeller.

Sato describes an impeller structure including a plurality of blades having sawtooth shape elements on the outer circumferential blade ends. See Figure 8 of Sato. However, Sato fails to disclose and suggest “a plurality of smooth portions, each being provided between a pair of the notches, wherein the notches have a triangular shape and an arcuate portion is formed in a bottom portion of each of the notches” as claimed.

Shibata describes a wind turbine including a blade structure having dentations on a rear part member 16. Also, the dentations form in trapezoid shape with corner 13a. See Figures 6(B) and 8 of Shibata. However, similarly to Sato, Shibata neither discloses nor suggests “a plurality of smooth portions, each being provided between a pair of the notches, wherein the notches have a triangular shape and an arcuate portion is formed in a bottom portion of each of the notches” as claimed.

Thus, Sato and Shibata, when taken alone or in combination (assuming they can be combined, which Applicants do not admit), does not disclose or suggest “a plurality of smooth portions, each being provided between a pair of the notches, wherein the notches have a triangular shape and an arcuate portion is formed in a bottom portion of each of the notches” as claimed.

In view of the above remarks with respect to independent claims 1-7, it is respectfully submitted that Sato and Shibata do not make the present invention unpatentable. The dependent claims are also patentable for at least their dependency. Thus, it is further respectfully submitted that this rejection should be withdrawn.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Dennis P. Chen Reg. No. 61,767 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Application No. 10/588,802
Amendment dated March 12, 2009
Reply to Office Action of December 29, 2008

Docket No.: 5173-0103PUS1

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: March 12, 2009

Respectfully submitted,

By 

D. Richard Anderson

Registration No.: 40,439

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant